COMPLETE LISTING OF THE CLAIMS

Please cancel claims 22-30. Please add new claim 31-33 as indicated below.

31. (New) A method for beamforming by a base station, the method comprising:

providing a mobile station's position to a spatial processing unit;

providing a base station's position to the spatial processing unit;

calculating the direction of the mobile station with respect to the base station according to the mobile station's position and the base station's position;

calculating the number and direction of beams according to information supplied by a multipath database that includes records of mobile station's position and corresponding angle of arrival of energy; and

determining the gain and phase of each element of an antenna according to the number and direction of beams.

32. (New) A base station comprising:

means for providing a mobile station's position to a spatial processing unit;

means for providing the base station's position to the spatial processing unit;

means for calculating the direction of the mobile station with respect to the base station according to the mobile station's position and the base station's position;

means for calculating the number and direction of beams according to information supplied by a multipath database that includes records of mobile station's position and corresponding angle of arrival of energy; and

means for determining the gain and phase of each element of an antenna according to the number and direction of beams.

33. (New) A base station comprising:

a processor for providing a mobile station's position and the base station's position a to a spatial processing unit;

a spatial processing unit for calculating the direction of the mobile station with respect to the base station according to the mobile station's position and the base station's position, for calculating the number and direction of beams according to information supplied by a multipath

database that includes records of mobile station's position and corresponding angle of arrival of energy, and determining the gain and phase of each element of an antenna according to the number and direction of beams.